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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,159	08/08/2001	Stephen Clark Purcell	274754 BEL-033	3076

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EXAMINER

BULLOCK JR, LEWIS ALEXANDER

ART UNIT PAPER NUMBER

2195

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/925,159	Applicant(s) PURCELL, STEPHEN CLARK	
Examiner Lewis A. Bullock, Jr.	Art Unit 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The attempt to incorporate subject matter into this application by reference to other co-pending applications is ineffective because the serial numbers, filing dates, and current status are not filled in (see page 8).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant claims each forward message is received at a destination directly from the source. The examiner cannot find any support for the performance of the step in the claims.
4. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant claims that the steps / means of serially receiving, from a source, a

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plurality of forward messages each addressed to one of the plurality of destinations,

wherein each forward message is received at a destination directly from the

source. The examiner cannot determine enablement from the claims for the following reasons. First, Applicant states that support for the claim is disclosed in figure 1.

Figure 1 detail sources communicating with a port which contains logic, i.e. forward queue / delay / reverse queue, for forwarding messages to destinations. The description of figure 1 from the specification details a plurality of ports relay messages between a source and a plurality of destinations (pg. 4, lines 1-31). Therefore, the examiner cannot find both support or enablement for the source directly sending the message to a destination since the port is used to forward the message, e.g. indirect communication. Secondly, the other claim limitations contradict the performance of **the disputed limitation of each forward message is received at a destination directly from the source.** The claims allude to an intermediate entity between the source and destination that handles the communication of forward and destination messages. For instance, claim 1 details serially receiving, **from a source**, a plurality of forward messages....receiving a plurality of availability signals indicating that one of the destinations is available to accept a forward message and simultaneously sending a forward message at each available destination. There must be an intermediate entity if the forward message is serially received from a source and availability signals are used to send a forward message to a destination and therefore the forward message is not directly received from the source.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 5, 7-10, 12, 14-17, 19 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by NECHES (U.S. Patent 5,276,899).

As to claim 1, NECHES teaches a method comprising: serially receiving, from a source (host computer), a plurality of forward messages (requests) each addressed to one of a plurality of destinations (interface processor / other processors), wherein each forward message is received at a destination directly from the source (col. 37, line 52 – col. 38, line 15); receiving a plurality of availability signals (status indicators of the processors), each availability signal indicating that one of the destinations (other processors) is available to accept a forward message (whether the processor is busy, idle, etc.) (col. 6, line 16-17); simultaneously (concurrently) sending a forward message (message packet) to each available destination (other processor); simultaneously (concurrently) receiving, after a predetermined period of time, a plurality of reverse messages (response information) from the destinations (other processors), each reverse message (response information) corresponding to one of the forward messages (message packets) simultaneously sent to an available destination (other processors); and serially sending the reverse messages (response messages) to the source (host

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computer) (col. 4, line 29 – col. 6, line 22; col. 11, line 29 – col. 12, line 42; col. 15, line 25 – col. 18, line 21; col. 43, line 48 – col. 44, line 57).

As to claim 2, NECHES teaches the source (host computer) identifies each of the forward messages (requests / message packets) by a different tag (transaction number / TN), further comprising: placing a tag (transaction number / TN) in a delay buffer (H.S. RAM / incoming or outgoing message storage) when sending to a destination (other processor) the forward message (message packet) identified by that tag, wherein the delay buffer implements a delay equal to the predetermined period of time such that the tag is available when receiving from memory the reverse message (response information) corresponding to the forward message (message packet); and sending the tag to the source (host computer) with the reverse message (response information), whereby the source (host computer) associates the reverse message (response information) with the forward message (message packet) (col. 23, line 50 – col. 28, line 44).

As to claim 3, NECHES teaches associating a priority (priority) with each forward message (message packet); and sending a forward message (message packet) to a destination (other processor) when that forward message (message packet) has a higher priority than other forward messages (message packets) addressed to the destination (other processor) (col. 4, line 29 – col. 6, line 22; col. 11, line 29 – col. 12, line 42; col. 15, line 25 – col. 18, line 21).

As to claim 5, NECHES teaches associating a priority (priority) with each reverse message (response information); and sending a reverse message (response information) to the source (host computer) when that reverse message (response message) has a higher priority than other reverse messages (response messages) (col. 4, line 29 – col. 6, line 22; col. 11, line 29 – col. 12, line 42; col. 15, line 25 – col. 18, line 21).

As to claim 7, NECHES teaches each destination is a memory bank (via the processors being access module processors controlling different secondary storages), each forward message (message packet) is a memory transaction (performing operations on the storages), and each reverse message (response information) is the result of one of the memory transactions (col. 4, line 29 – col. 6, line 22; col. 11, line 29 – col. 12, line 42; col. 15, line 25 – col. 18, line 21).

As to claims 8-10, 12 and 14, reference is made to an apparatus that is similar to the method of claims 1-3, 5 and 7 and is therefore met by the rejection of claims 1-3, 5 and 7 above.

As to claims 15-17, 19 and 21, reference is made to a computer program product that is similar to the method of claims 1-3, 5 and 7 and is therefore met by the rejection of claims 1-3, 5 and 7 above.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4, 6, 11, 13, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over NECHES (U.S. Patent 5,276,899).

As to claims 4 and 6, NECHES teaches the forward message (message packets) and reverse messages (response information) having priorities and processing the messages based on their priorities (col. 4, line 29 – col. 6, line 22; col. 11, line 29 – col. 12, line 42; col. 15, line 25 – col. 18, line 21; col. 43, line 48 – col. 44, line 57). However, the NECHES does not teach the priorities represent the age of the message. “Official Notice” is taken in that it is well known in the art at the time of the invention that a priority represents the age of the message, i.e. how long ago the message was sent, or what time it was generated. Therefore, it would be obvious to one skilled in the art to combine the teachings of NECHES with the well-known technique of priority representation in order to avoid excessively delaying low priority messages.

As to claims 11 and 13, reference is made to an apparatus that is similar to the method of claims 4 and 6 and is therefore met by the rejection of claims 4 and 6 above.

As to claims 18 and 20, reference is made to a computer program product that is similar to the method of claims 4 and 6 and is therefore met by the rejection of claims 4 and 6 above.

Response to Arguments

9. Applicant's arguments filed July 5, 2005 have been fully considered but they are not persuasive. Applicant argued that Neches does not teach serially receiving, from a source, a plurality of forward messages each addressed to one of a plurality of destinations wherein each forward message is received at a destination directly from the source because in Neches, requests from the host computer are communicated to an interface processor which routes the requests to a processor. Applicant states that the present invention in contrast, the source **directly** transmits each forward message to an addressed destination where each forward message is addressed to one of a plurality of destinations. There is no interface processor that routes the request as in the prior art. The examiner disagrees. Applicant states that support for the direct communication is made in figure 1. As detailed in the 112 1st paragraph rejections made above, Figure 1 detail sources communicating with a port which contains logic, i.e. forward queue / delay / reverse queue, for forwarding messages to destinations. The description of figure 1 from the specification details a plurality of ports relay messages between a source and a plurality of destinations (pg. 4, lines 1-31). Therefore, the examiner cannot find both support or enablement for the source directly sending the message to a destination since the port is used to forward the message,

e.g. indirect communication. Secondly, the other claim limitations contradict the performance of **the disputed limitation of each forward message is received at a destination directly from the source**. The claims allude to an intermediate entity between the source and destination that handles the communication of forward and destination messages. For instance, claim 1 details serially receiving, **from a source**, a plurality of forward messages...receiving a plurality of availability signals indicating that one of the destinations is available to accept a forward message and simultaneously sending a forward message at each available destination. There must be an intermediate entity if the forward message is serially received from a source and availability signals are used to send a forward message to a destination and therefore the forward message is not directly received from the source. In addition, Neches teaches at column 37, line 51 - column 38, line 15, that processors can communicate in a processor to processor communication, e.g. directly and column 12, lines 52-54 as well as an intermediate entity and column 15, lines 30-33 details that a byte sequence of the message contains a destination selection. Therefore, Neches does teach that a message is sent directly from a source to a destination in addition to sending a message to a central entity for forwarding to a destination wherein the messages include an indication of a destination processor. The examiner would also like to make Applicant aware that as proper under M.P.E.P. 2111, the examiner cannot incorporate limitations of the specification or other parts of the application in interpreting the claims, but must give the claims their broadest reasonably interpretation consistent with the specification. Therefore, the examiner cannot interpret the receiving step to be

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performed by a port having the defined logic as detailed in figure 1, but can be performed by any intermediate entity that allows for forward messages to be received and direct communication to be performed. Therefore, the examiner believes that the claims are met by the teachings of Neches and maintains the rejection as indicated above.

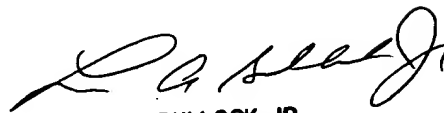
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (571) 272-3759. The examiner can normally be reached on Monday-Friday, 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 12, 2005


LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER